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OFFICE OF THE STATE OF THE STAT

Postal Rate and Fee Changes, 1997

Docket No. R97-1

ANSWERS OF THE OFFICE OF THE CONSUMER ADVOCATE
TO INTERROGATORIES OF UNITED STATES POSTAL SERVICE
WITNESS: JOHN H. O'BANNON (USPS/OCA-T200-6-11)
(FEBRUARY 9, 1998)

The Office of the Consumer Advocate hereby submits the answers of John H.

O'Bannon to interrogatories USPS/OCA-T200-6-11, dated January 26, 1998. Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

Shelley S. Dreifuss

Attorney

Office of the Consumer Advocate

#### USPS/OCA-T200-6.

- (a) Please confirm that the purpose of attempting to measure "own price" elasticities is to estimate the effect of changes in price of the good or service in question on its own volume, holding constant all other factors also believed to affect its volume. If you do not confirm, please explain fully, and include citations to supporting literature.
- (b) Please confirm that the purpose of attempting to measure "cross price" elasticities is to estimate the effect of changes in price of other goods or services on the volume of the good or service in question, holding constant all other factors also believed to affect volume of the good or service in question. If you do not confirm, please explain fully, and include citations to supporting literature.
- (c) Please confirm that if own-price changes and cross-price changes occur simultaneously, it is **not** economically implausible that cross-price effects might supersede own-price effects on a particular category. If you do not confirm, please explain fully.
- A. (a)-(c) Confirmed. Recall that my testimony addresses Witness Mayes' volume distribution method and the economic anomalies that result at the level of individual cells in Parcel Post.

USPS/OCA-T200-7. Please confirm that the discussion on page 4 of your testimony which purports to describe the Postal Service's volume distribution method is less than totally accurate, at least to the extent that it omits to note that the after-rates forecasts (lines 13-19) may include the effects of cross-price changes (in other categories) as well as own-price changes. If you do not confirm, please explain fully.

A. My description of the Postal Service's volume distribution method was not intended to be comprehensive. The issue addressed in my testimony is the Postal Service's estimation technique with regard to individual cells of Parcel Post. As I state in lines 16-19 on page 4, "At no time, however, does the Postal Service specifically examine the rate change in a particular cell and attempt to generate a volume estimate directly related to that individual cell's rate change."

#### USPS/OCA-T200-8.

- (a) Please confirm that the results that you present in your Appendix 3 cannot properly be characterized as own-price elasticities because, while the price changes are restricted to proposed changes in own prices, the forecasted volume changes reflect proposed changes in cross prices as well as own prices. If you do not confirm, please explain fully.
- (b) Please confirm that the results that you present in your Appendix 3 would have been different if you had backed out all Priority Mail cross price effects from the volume forecasts before applying your formula. If you do not confirm, please explain fully.
- (c) Please confirm that the results you present in Appendix 4, including the SMD values, would have been different if you had backed out all Priority Mail cross price effects from the volume forecasts before computing that Appendix. If you do not confirm, please explain fully.
- (d) Please confirm that Section IV of your testimony ("Empirical Analysis") would have been different if you had backed out all Priority Mail cross price effects from the volume forecasts before computing Appendix 4. If you do not confirm, please explain fully.
- (e) Please confirm that certain statements in your Conclusion on page 14 (e.g., the last sentence in the first paragraph, the second sentence in the second paragraph) might have been different if you had backed out all Priority Mail cross price effects from the volume forecasts before computing Appendix 4. If you do not confirm, please explain fully.
- A. (a)-(e) The specific numerical results arrived at in my testimony would have been different had cross-price elasticities been available for each cell in each category of Parcel Post with respect to Priority Mail and with respect to every other cell in Parcel Post. There is no way to assure that incorporating the cross-price effects of Priority Mail on individual cells of Parcel Post would be enough to ensure that a negative own price elasticity would result for each cell. Furthermore, it is likely that each cell has a different cross-price elasticity with the Priority Mail subclass (or even a different cross-price elasticity with each cell of Priority Mail) and it is probably a computationally intense task to compute these elasticity values for each cell under observation. However, this does not undo my argument that the proportional distribution method is not appropriate. The conclusions that I arrived at on page 14 simply imply that this method results in empirically restrictive situations that were not supported by the data.

USPS/OCA-T200-9. Please refer to your response to USPS/OCA-T200-1(h).

- (a) In the last sentence, you state that witness Mayes "ignores the cross-price elasticities among the cells in a given category." Please confirm that, as stated on page 7 of your testimony, your analysis assumes ("Assumption 2") that there are no cross-price elasticities among the cells in a given category. If you cannot confirm, please explain fully.
- (b) Are you suggesting that witness Mayes "ignores the cross-price elasticities among the cells" and instead relies exclusively on own-price elasticities? Please explain fully.
- (c) Would you agree that the use of the "pre-rate change proportions" to distribute an aggregate category forecast can be thought of as implicitly assuming that, for each rate cell, the combined effect on volume of all relevant rate changes (i.e., its own price and all relevant intra-category, inter-category, and intra-subclass price changes, each multiplied by the corresponding own-price or cross-price elasticity) will be the same? If you do not agree, please explain.
- (d) Might it not be the case that, rather than "ignor[ing] the cross-price elasticities among the cells in a given category," witness Mayes uses pre-rate case proportions precisely because she lacks the full range of own-price and cross-price elasticity information she would need to properly "take into account the effects of relative changes in rates between the cells in any one category"? Please explain fully.
- A. (a) Confirmed. As I stated in USPS/OCA-T200-1(k) I am not sure if crossprice elasticities among all the cells in a given category of Parcel Post are available or easily computable.
- (b) No. As has been previously described in detail, Witness Mayes simply took the total volume numbers given to her by Dr. Tolley, who did incorporate cross-price effects among categories of Parcel Post and Priority Mail, and distributed them among the cells in a given category using the historical proportions.
- (c) The statement regarding what the Postal Service is implicitly assuming is correct as written. However, the Postal Service cannot concurrently argue both positions. If one takes into account the cross-price effects of Priority Mail on Parcel Post volumes, then one must also take into account the cross-price effects among the various cells of a given category of Parcel Post.

(d) Witness Mayes may have chosen her volume distribution method because the full range of cross-price elasticities is not readily available. However, the method used should still attempt to take into account the fact that some cells experience decreases in their rates while others experience increases. Her proportional volume distribution ignores the relative price changes among the cells in the DBMC category of Parcel Post.

USPS/OCA-T200-10. Please refer to your response to USPS/OCA-T200-1(k). To restate your criticism of the proportional distribution method as succinctly as possible, would it be fair to suggest that you are troubled by the fact that in any instance in which rates for some cells in a category move in the opposite direction than rates for most cells (in this instance, rates decline for 2 cells out of 276), the proportional distribution method, all else being held equal, will cause the volume distributed to those cells to move in the same direction as the volume in the rest of the cells, notwithstanding the difference in direction of rate changes? If you do not agree, please explain fully.

A. The statement describing the situation resulting from using the proportional distribution method is correct as written. As described in USPS/OCA-T200-9(d) above, the problem is the ignoring of the relative price changes among the cells in a given category of Parcel Post.

USPS/OCA-T200-11. Please reconcile the statement in your response to USPS/OCA-T200-1, subpart (k), that "[t]he existence of positive own price elasticities is the indicator of the problem" with your confirmation of subpart (g) that, with TYAR DBMC total volumes higher than TYBR volumes despite a rate increase for DBMC from TYBR to TYAR, application of the formula shown on your page 3 would suggest a "positive implicit own price elasticity" for the DBMC category as a whole. Specifically, are you suggesting that there is a "problem" with the forecast of higher total volume for the DBMC category?

A. I am not stating there is a problem with the forecast of higher **total** volume for the DBMC category. In USPS/OCA-T200-1(g) I was merely confirming that the calculation described in the question, using my implicit own price elasticity equation, would result in a positive value for individual cells. The equation I used to compute implicit own price elasticities at the cellular level does not take into account cross-price elasticities, while Dr. Tolley's estimation of total volume for the DBMC category takes into account the cross-price effect with regard to the Priority Mail subclass.

#### **DECLARATION**

I, John H. O'Bannon, declare under penalty of perjury that the answers to interrogatories USPS/OCA-T200-6-11 of the United States Postal Service are true and correct, to the best of my knowledge, information and belief.

Executed 2/9/98

John H. O'Bano

#### CERTIFICATE OF SERVICE

I hereby certify that I have this date served the foregoing document upon all participants of record in this proceeding in accordance with section 12 of the rules of practice.

Shelley S. Dreifuss

Attorney

Washington, D.C. 20268-0001 February 9, 1998